

**Appendix D**  
**DESCIM Data Model: airview1**  
**Emission Control Equipment Model**

| ENTITY NAME                  | ENTITY DEFINITION  | TABLE NAME         | ATTRIBUTE (LOGICAL)  | ATTRIBUTE (PHYSICAL)           | ATTRIBUTE DEFINITION   |
|------------------------------|--|--------------------|--|--------------------------------|--|
| ADSORPTION-CONTROL-DEVICE    | AN AIR EMISSION CONTROL DEVICE THAT CONVERTS GAS OR VAPOR TO LIQUID.   | CARBON_ABSORPTION_ | PLANT-EQUIPMENT Identifier**                               | PLNT_EQPMNT_ID                 |  |
|                              |  |                    | FACILITY Identifier**                                      | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorption Cycle Time            | ADSORPTION_CONTROL_DEVICE_Adso | The maximum amount of time necessary to saturate the adsorption material.                                  |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Regeneration Cycle Time          | ADSORPTION_CONTROL_DEVICE_Rege | The maximum amount of time to completely clean the collecting material.                                    |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorption Type Code             | ADSORPTION_CONTROL_DEVICE_Adso | The code that denotes the method of adsorption this control device uses.                                   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Regenerative Method Code         | ADSORPTION_CONTROL_DEVICE_Rege | The code that indicates the method for bed regeneration.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorption Material Code         | ADSORPTION_CONTROL_DEVICE_Adso | The code that indicates the type of adsorption material.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Compartment Number Quantity      | ADSORPTION_CONTROL_DEVICE_Comp | The number of compartments or beds into which the adsorber unit is divided.                                |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorbent Bed Length Dimension   | ADSORPTION_CONTROL_DEVICE_Adso | The length of the adsorbent bed.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorbent Bed Width Dimension    | ADSORPTION_CONTROL_DEVICE_Adso | The width of the adsorbent bed.  |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorbent Bed Height Dimension   | ADSORPTION_CONTROL_DEVICE_Adso | The height of the adsorbent bed.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Adsorbent Bed Diameter Dimension | ADSORPTION_CONTROL_DEVICE_Adso | The diameter of the adsorbent bed.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Bed Orientation Code             | ADSORPTION_CONTROL_DEVICE_Bed  | The code that indicates the orientation of the adsorbent beds.   |
|                              |  |                    | ADSORPTION-CONTROL-DEVICE Breakthrough Capacity Rate       | ADSORPTION_CONTROL_DEVICE_Brea | The capacity of the bed at which unreacted vapors begin to be exhausted.                                   |
| BIOFILTRATION-CONTROL-DEVICE | AN AIR EMISSION CONTROL DEVICE THAT USES MICROORGANISMS IN A CONTAINED UNIT TO ALTER OR OTHERWISE BREAK DOWN COMPOUND (USUALLY VOLATILE ORGANICS) INTO LESS OR NON-HAZARDOUS SUBSTANCES. | BIOFILTRATION_CONT | PLANT-EQUIPMENT Identifier**                               | PLNT_EQPMNT_ID                 |  |
|                              |  |                    | FACILITY Identifier**                                      | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Filter Length Dimension       | BIOFILTRATION_CONTROL_DEVICE_F | The length of the biofilter.   |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Filter Width Dimension        | BIOFILTRATION_CONTROL_DEVICE_F | The width of the biofilter.  |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Filter Depth Dimension        | BIOFILTRATION_CONTROL_DEVICE_F | The bed depth of the biofilter.  |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Flow Direction Code           | BIOFILTRATION_CONTROL_DEVICE_F | The code that denotes the direction of contaminated vapor flow through the biofilter.                      |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Moisture Content Percent Rate | BIOFILTRATION_CONTROL_DEVICE_M | The percent moisture that is required to keep the bioorganisms alive.                                      |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Acclimation Time              | BIOFILTRATION_CONTROL_DEVICE_A | The time required for a filter to operate at full capacity after initial installation.                     |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Bed Life Quantity             | BIOFILTRATION_CONTROL_DEVICE_B | The optimal lifetime of the biofilter.   |
|                              |  |                    | BIOFILTRATION-CONTROL-DEVICE Residence Time                | BIOFILTRATION_CONTROL_DEVICE_R | The time the pollutant remains in the device.  |
| CONDENSER                    | An emission control device that converts gas or vapor to liquid.   | CONDENSOR          | PLANT-EQUIPMENT Identifier**                               | PLNT_EQPMNT_ID                 |  |
|                              |  |                    | FACILITY Identifier**                                      | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                              |  |                    | CONDENSER Coolent Type Code                                | CONDENSER_Coolent_Type_Code    | The code that denotes the type of coolent used to lower the pollutant emission stream to its saturation po |
|                              |  |                    | CONDENSER Coolent Flow Rate                                | CONDENSER_Coolent_Flow_Rate    | The flow rate of the coolent in pounds per hour.   |
|                              |  |                    | CONDENSER Surface Area                                     | CONDENSER_Surface_Area         | The total surface area available for condensation of the pollutant.  |
| CONTROL-EQUIPMENT-MONITOR    | A DEVICE USED TO INSURE THAT THE CONTROL EQUIPMENT IS OPERATING PROPERLY.  | CONTROL_EQUIPMENT_ | CONDENSER Refrigeration Capacity Quantity                  | CONDENSER_Refrigeration_Capaci | The capacity of the condenser in standard ton rating.  |
|                              |  |                    | CONTROL-EQUIPMENT-MONITOR Item Monitored Code              | CONTROL_EQUIPMENT_MONITOR_Item | The code that represents the item being monitored to insure the emission control equipment is operating pr |
|                              |  |                    | PLANT-EQUIPMENT Identifier**                               | PLNT_EQPMNT_ID                 |  |
|                              |  |                    | FACILITY Identifier**                                      | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                              |  |                    | CONTROL-EQUIPMENT-MONITOR Type Code                        | CONTROL_EQUIPMENT_MONITOR_Type | The code that represents the type of monitoring device.  |

**Appendix D**  
**DESCIM Data Model: airview1**  
**Emission Control Equipment Model**

| ENTITY NAME                | ENTITY DEFINITION  | TABLE NAME         | ATTRIBUTE (LOGICAL)  | ATTRIBUTE (PHYSICAL)           | ATTRIBUTE DEFINITION   |
|----------------------------|--|--------------------|--|--------------------------------|--|
| CYCLONE                    | A PARTICULATE INERTIAL SEPARATOR AIR EMISSION CONTROL DEVICE IN WHICH THE PARTICULATE LADEN GAS STREAM IS FORCED TO SPIN IN A VORTEX.                          | CYCLONE            | PLANT-EQUIPMENT Identifier**                                 | PLNT_EQPMNT_ID                 |  |
|                            |  |                    | FACILITY Identifier**  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                            |  |                    | CYCLONE Type Code  | CYCLONE_Type_Code              | The code that denotes the type of cyclone.   |
|                            |  |                    | CYCLONE Inlet Type Code                                      | CYCLONE_Inlet_Type_Code        | The code that denotes whether the inlet is circular or square.   |
|                            |  |                    | CYCLONE Inlet Diameter Dimension                             | CYCLONE_Inlet_Diam             | The diameter of the CYCLONE inlet.   |
|                            |  |                    | CYCLONE Inlet Velocity Rate                                  | CYCLONE_Inlet_Velocity_Rate    | The expected inlet velocity of the air stream entering the CYCLONE.  |
|                            |  |                    | CYCLONE Outlet Diameter Dimension                            | CYCLONE_Outlet_Dia             | The diameter of the CYCLONE Outlet.  |
|                            |  |                    | CYCLONE Body Diameter Dimension                              | CYCLONE_Body_Diame             | The diameter of the CYCLONE body.  |
|                            |  |                    | CYCLONE Cone Height Dimension                                | CYCLONE_Cone_Heigh             | The height of the CYCLONE.   |
|                            |  |                    | CYCLONE Tube Number Quantity                                 | CYCLONE_Tube_Number_Quantity   | The number of tubes in the multicyclone.   |
|                            |  |                    | CYCLONE Tube Diameter Dimension                              | CYCLONE_Tube_Diameter_Dimensio | The diameter of a tube in the multicyclone.  |
|                            |  |                    | CYCLONE Wet Spray Nozzle Quantity                            | CYCLONE_Wet_Spray_             | The number of wet spray nozzles in the CYCLONE.  |
|                            |  |                    | CYCLONE Wet Spray Liquid Type Code                           | CYCLONE_Wet_Spray_             | The code that denotes the type of wet spray liquid used.   |
|                            |  |                    | CYCLONE Wet Spray Liquid Flow Rate                           | CYCLONE_Wet_Spray_             | The rate of liquid application in gallons per minute.  |
|                            |  |                    | CYCLONE Wet Spray Make-Up Rate                               | CYCLONE_Wet_Spray_             | The rate of replacement for liquid lost to evaporation   |
|                            |  |                    | CYCLONE Wet Spray Recycled Quantity                          | CYCLONE_Wet_Spray_             | The percent of wet spray that is recycled.   |
|                            |  |                    | CYCLONE Hopper Aspiration Code                               | CYCLONE_Hopper_Aspiration_Code | The code that denotes whether a hopper aspiration system is utilized.                                      |
|                            |  |                    | CYCLONE Louver Number Quantity                               | CYCLONE_Louver_Number_Quantity | The number of louvers used by the cyclone.   |
| DEMISTER                   | AN AIR EMISSION CONTROL DEVICE USED TO REMOVE LIQUID PARTICULATE (DROPLETS OR MIST) FROM AN AIR STREAM.  | DEMISTER           | PLANT-EQUIPMENT Identifier**                                 | PLNT_EQPMNT_ID                 |  |
|                            |  |                    | FACILITY Identifier**  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                            |  |                    | DEMISTER Type Code   | DEMISTER_Type_Code             | The code that denotes the type of demister.  |
| ELECTROSTATIC-PRECIPITATOR | AN AIR EMISSION CONTROL DEVICE THAT REMOVES PARTICULATE MATTER FROM A GAS STREAM BY PASSING THE GAS STREAM THROUGH DISCHARGE ELECTRODES AND COLLECTION PLATES. | ELECTROSTATIC_PREC | PLANT-EQUIPMENT Identifier**                                 | PLNT_EQPMNT_ID                 |  |
|                            |  |                    | FACILITY Identifier**  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Collection Plate Area             | ELECTROSTATIC_PRECIPITATOR_Col | The Surface area of a collection plate.  |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Compartment Number Quantity       | ELECTROSTATIC_PRECIPITATOR_Com | The number of compartments in the ELECTROSTATIC-PRECIPITATOR.  |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Compartment Arrangement Code      | ELECTROSTATIC_PRECIPITATOR_Com | The code that denotes the arrangement of the compartments in the ELECTROSTATIC-PRECIPITATOR.               |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Compartment Plate Number Quantity | ELECTROSTATIC_PRECIPITATOR_Com | The number of plates in each compartment of the ELECTROSTATIC-PRECIPITATOR.                                |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Particle Migration Velocity Rate  | ELECTROSTATIC_PRECIPITATOR_Par | The average drift velocity for the collected particles in the ELECTROSTATIC-PRECIPITATOR.                  |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Charge System Type Code           | ELECTROSTATIC_PRECIPITATOR_Cha | The code that denotes whether the charge system is positive or negative.                                   |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Charging Voltage Quantity         | ELECTROSTATIC_PRECIPITATOR_Cha | The strength of the field (in volts) imparting the charge to the particles to be collected by the ELECTROS |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Collecting Voltage Quantity       | ELECTROSTATIC_PRECIPITATOR_Col | The strength of the field (in volts) where particles are to be collected by the ELECTROSTATIC-PRECIPITATO  |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Corona Power Rate                 | ELECTROSTATIC_PRECIPITATOR_Cor | The input power in watts per 1000 CFM for the ELECTROSTATIC-PRECIPITATOR.                                  |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Support Gas Name Text             | ELECTROSTATIC_PRECIPITATOR_Sup | The name of the support gas used by the ELECTROSTATIC-PRECIPITATOR.  |
|                            |  |                    | ELECTROSTATIC-PRECIPITATOR Support Gas Viscosity Rate        | ELECTROSTATIC_PRECIPITATOR_Sup | The viscosity of the support gas in poise for the ELECTROSTATIC-PRECIPITATOR.                              |

# **Appendix D** **DESCIM Data Model: airview1** **Emission Control Equipment Model**

| ENTITY NAME                | ENTITY DEFINITION  | TABLE NAME         | ATTRIBUTE (LOGICAL)                               | ATTRIBUTE (PHYSICAL)                    | ATTRIBUTE DEFINITION  |
|----------------------------|--|--------------------|---|---|---|
| EMISSION-CONTROL-EQUIPMENT | A DEVICE USED TO REDUCE POLLUTANT(S) EMITTED FROM AN AIR-EMISSION-SOURCE.  | EMISSION_CONTROL_E | PLANT-EQUIPMENT Identifier**                      | PLNT_EQPMNT_ID                          |   |
|                            |  |                    | FACILITY Identifier**                             | FACILITY_Identifier                     | The identifier that represents a FACILITY.  |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Type Code              | EMISSION_CONTROL_E                      | The code that indicates the type of control equipment.  |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Maximum Inlet Flow     | EMISSION_CONTROL_E                      | The maximum recommended operating inlet flow rate for the equipment.                          |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Minimum Inlet Flow     | EMISSION_CONTROL_EQUIPMENT_Min          | The minimum recommended operating inlet flow rate for the equipment.                          |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Design Inlet Flow Rate | EMISSION_CONTROL_EQUIPMENT_Des          | The recommended optimal operating inlet flow rate for the equipment.                          |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Maximum Outlet Flow    | EMISSION_CONTROL_EQUIPMENT_Max          | The maximum recommended operating outlet flow rate for the equipment.                         |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Minimum Outlet Flow    | EMISSION_CONTROL_EQUIPMENT_Min          | The minimum recommended operating outlet flow rate for the equipment.                         |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Design Outlet Flow     | EMISSION_CONTROL_EQUIPMENT_Des          | The recommended optimal operating outlet flow rate for the equipment.                         |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Inlet Flow Velocity    | EMISSION_CONTROL_EQUIPMENT_Max          | The air flow velocity in feet per second entering the control device during normal operation. |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Outlet Flow Velocity   | EMISSION_CONTROL_EQUIPMENT_Min          | The air flow velocity in feet per second exiting the control device during normal operation.  |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Minimum Pressure       | EMISSION_CONTROL_E                      | The minimum pressure value allowed for optimum performance.                                   |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Maximum Pressure       | EMISSION_CONTROL_E                      | The maximum pressure value allowed for optimum performance.                                   |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Minimum Inlet          | EMISSION_CONTROL_EQUIPMENT_Min          | The minimum inlet temperature expected during normal operation.                               |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Maximum Inlet          | EMISSION_CONTROL_EQUIPMENT_Max          | The maximum inlet temperature expected during normal operation.                               |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Minimum Outlet         | EMISSION_CONTROL_EQUIPMENT_Min          | The minimum outlet temperature expected during normal operation.                              |
|                            |  |                    | EMISSION-CONTROL-EQUIPMENT Maximum Outlet         | EMISSION_CONTROL_EQUIPMENT_Max          | The maximum outlet temperature expected during normal operation.                              |
| FABRIC-FILTER              | AN EMISSION CONTROL DEVICE THAT REMOVES DUST FROM A GAS STREAM BY PASSING THE STREAM THROUGH A POROUS FABRIC.                        | DRY_SCRUBBER       | PLANT-EQUIPMENT Identifier**                      | PLNT_EQPMNT_ID                          |   |
|                            |  |                    | FACILITY Identifier**                             | FACILITY_Identifier                     | The identifier that represents a FACILITY.  |
|                            |  |                    | FABRIC-FILTER Filter Quantity                     | FABRIC_FILTER_Filter_Quantity           | The number of filters used by the control equipment.  |
|                            |  |                    | FABRIC-FILTER Filter Surface Area                 | FABRIC_FILTER_Filter_Surface_A          | The filter surface area.  |
|                            |  |                    | FABRIC-FILTER Filter Length                       | FABRIC_FILTER_Filter_Length_Di          | The length of the filter.   |
|                            |  |                    | FABRIC-FILTER Filter Width                        | FABRIC_FILTER_Filter_Width_Dim          | The width of the filter.  |
|                            |  |                    | FABRIC-FILTER Filter Diameter                     | FABRIC_FILTER_Filter_Diameter_Dimension | The diameter of the filter.   |
|                            |  |                    | FABRIC-FILTER Filter Thickness                    | FABRIC_FILTER_Filter_Thickness          | The thickness of the filter.  |
|                            |  |                    | FABRIC-FILTER Filter Material Type Code           | FABRIC_FILTER_Filter_Materiel_          | The code that represents the material the filter is composed of.                              |
|                            |  |                    | FABRIC-FILTER Filter Cleaning Method Code         | FABRIC_FILTER_Filter_Cleaning_          | The code that represents the cleaning method for the filter.                                  |
|                            |  |                    | FABRIC-FILTER Maximum Allowable Temperature       | FABRIC_FILTER_Maximum-Allowabl          | The maximum allowable operating temperature for the material.                                 |
|                            |  |                    | FABRIC-FILTER Stage Number                        | FABRIC_FILTER_Stage_Number_Qua          | The number of stages of filters to remove particulate.  |
| GASEOUS-ABSORBER           | AN AIR EMISSION CONTROL DEVICE WHERE ONE OR MORE SELECTED GASEOUS POLLUTANTS ARE REMOVED BY TREATMENT WITH A LIQUID THROUGH CONTACT. | GASEOUS_ABSORBER   | PLANT-EQUIPMENT Identifier**                      | PLNT_EQPMNT_ID                          |   |
|                            |  |                    | FACILITY Identifier**                             | FACILITY_Identifier                     | The identifier that represents a FACILITY.  |
|                            |  |                    | GASEOUS-ABSORBER Type Code                        | GASEOUS_ABSORBER_Type_Code              | The code that denotes the type of gaseous absorber.   |
|                            |  |                    | GASEOUS-ABSORBER Inlet Gas Pressure Rate          | GASEOUS_ABSORBER_Inlet_Gas_Pre          | The expected inlet gas pressure in pounds per square inch.                                    |
|                            |  |                    | GASEOUS-ABSORBER Gas Dew Point Temperature        | GASEOUS_ABSORBER_Gas_Dew_Point          | The expected temperature at which the gas stream first changes into liquid phase.             |
|                            |  |                    | GASEOUS-ABSORBER Gas Velocity Rate                | GASEOUS_ABSORBER_Gas_Velocity_          | The expected gas velocity through the net column cross-sectional area.                        |
|                            |  |                    | GASEOUS-ABSORBER Column Type Code                 | GASEOUS_ABSORBER_Column_Type_C          | The code that denotes the column type of the gaseous absorber.                                |
|                            |  |                    | GASEOUS-ABSORBER Packed Column Packing Code       | GASEOUS_ABSORBER_Packed_Column          | The code that denotes the type packing used in a packed column absorber.                      |

# **Appendix D** **DESCIM Data Model: airview1** **Emission Control Equipment Model**

| ENTITY NAME                         | ENTITY DEFINITION  | TABLE NAME                          | ATTRIBUTE (LOGICAL)                                    | ATTRIBUTE (PHYSICAL)           | ATTRIBUTE DEFINITION   |
|-------------------------------------|--|-------------------------------------|--|--------------------------------|--|
| GASEOUS-ABSORBER<br><br>(continued) | AN AIR EMISSION CONTROL DEVICE WHERE ONE OR MORE SELECTED GASEOUS POLLUTANTS ARE<br><br>(continued)  | GASEOUS_ABSORBER<br><br>(continued) | GASEOUS-ABSORBER Plate Column Spacing                  | GASEOUS_ABSORBER_Plate_Column_ | The distance between plates in the plate column absorbing tower.   |
|                                     |  |                                     | GASEOUS-ABSORBER Column Length Dimension               | GASEOUS_ABSORBER_Column_Length | The length of the column in the gaseous absorber.  |
|                                     |  |                                     | GASEOUS-ABSORBER Column Diameter Dimension             | GASEOUS_ABSORBER_Column_Diamet | The diameter of the column in the gaseous absorber.  |
|                                     |  |                                     | GASEOUS-ABSORBER Liquid Type Code                      | GASEOUS_ABSORBER_Liquid_Type_C | The code that indicates the type of liquid used by the gaseous absorber.                                   |
|                                     |  |                                     | GASEOUS-ABSORBER Recirculated Percent Rate             | GASEOUS_ABSORBER_Recirculated_ | The percentage of liquid returned to the gaseous absorber system.  |
|                                     |  |                                     | GASEOUS-ABSORBER Liquid Injection Rate                 | GASEOUS_ABSORBER_Liquid_Inject | The expected total volumetric flow rate of the liquid used by the gaseous absorber.                        |
|                                     |  |                                     | GASEOUS-ABSORBER Make Up Rate                          | GASEOUS_ABSORBER_Make_Up_Rate  | The rate at which new liquid must be added to the system due to evaporation or discharge to a disposal sys |
|                                     |  |                                     |  |                                |  |
|                                     |  |                                     |  |                                |  |
| MATERIEL-ITEM**                     | A CHARACTERIZATION OF A MATERIEL ASSET.  | MATERIEL_ITEM                       | MATERIEL-ITEM Identifier**                             | 609                            | The identifier that represents a MATERIEL-ITEM.  |
|                                     |  |                                     | MATERIEL-ITEM Type Code**                              | MAT_ITM_TP_CD                  | The code that denotes the type of MATERIEL-ITEM.   |
| PLANT-EQUIPMENT**                   | A MATERIEL-ITEM TO CARRY OUT PRE-DETERMINED FUNCTIONS IN A STRUCTURED ENVIRONMENT.   | EMISSION_CONTROL_E                  | PLANT-EQUIPMENT Identifier**                           | PLNT_EQPMNT_ID                 | The identifier that represents a PLANT-EQUIPMENT within a FACILITY.  |
|                                     |  |                                     | FACILITY Identifier**                                  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                                     |  |                                     | PLANT-EQUIPMENT Usage Type Code*                       | EQUIPMENT_Usage_Ty             | The code indicating the type usage of the PLANT-EQUIPMENT.   |
|                                     |  |                                     | PLANT-EQUIPMENT Manufacturer Name*                     | MATERIEL_SERIALIZE             | The name of the manufacturer of the PLANT-EQUIPMENT.   |
|                                     |  |                                     | PLANT-EQUIPMENT Install Date**                         | PLNT_EQPMNT_IN1_DT             | The installation date of a PLANT-EQUIPMENT.  |
|                                     |  |                                     | PLANT-EQUIPMENT Initial Operation Date*                | EQUIPMENT_Initial_             | The date that the PLANT-EQUIPMENT began operation.   |
|                                     |  |                                     | PLANT-EQUIPMENT Operation Status Code*                 | EQUIPMENT_Operatio             | The code that indicates the operational status of the PLANT-EQUIPMENT.                                     |
|                                     |  |                                     | PLANT-EQUIPMENT Removal Date*                          | EQUIPMENT_Removal_             | The date that the PLANT-EQUIPMENT was  |
|                                     |  |                                     | PLANT-EQUIPMENT Manufacturer Serial Number Identifier* | MATERIEL_SERIALIZE             | The unique identifier assigned to the PLANT-EQUIPMENT by the manufacturer.                                 |
|                                     |  |                                     | PLANT-EQUIPMENT Manufacture Date*                      | MATERIEL_SERIALIZE             | The date when the PLANT-EQUIPMENT was manufactured.  |
|                                     |  |                                     | PLANT-EQUIPMENT Description Text*                      | PLNT_EQPMNT_DS1_TX             | The text of the depiction of a PLANT-EQUIPMENT.  |
|                                     |  |                                     | PLANT-EQUIPMENT Type Code**                            | PLNT_EQPMNT_TYP_CD             | The code that represents a kind of PLANT-EQUIPMENT.  |
|                                     |  |                                     | PLANT-EQUIPMENT Asset Type Code**                      | PLNT_EQPMNT_AS1_CD             | The code that denotes the designated management of PLANT-EQUIPMENT.  |
|                                     |  |                                     |  |                                |  |
|                                     |  |                                     |  |                                |  |
| SETTLING-CHAMBER                    | AN AIR EMISSION CONTROL DEVICE USED TO REMOVE PARTICULATE FROM A GAS STREAM BY IMPACTION AND GRAVITY SETTLING.   | SETTLING_CHAMBER                    | PLANT-EQUIPMENT Identifier**                           | PLNT_EQPMNT_ID                 |  |
|                                     |  |                                     | FACILITY Identifier**                                  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                                     |  |                                     | SETTLING-CHAMBER Type Code                             | SETTLING_CHAMBER_Type_Code     | The code that denotes the type of settling chamber.  |
|                                     |  |                                     | SETTLING-CHAMBER Length Dimension                      | SETTLING_CHAMBER_Length_Dimens | The length of the chamber in inches.   |
|                                     |  |                                     | SETTLING-CHAMBER Width Dimension                       | SETTLING_CHAMBER_Width_Dimensi | The width of the chamber in inches.  |
|                                     |  |                                     | SETTLING-CHAMBER Height Dimension                      | SETTLING_CHAMBER_Height_Dimens | The greatest distance a particle must fall to be collected in the chamber.                                 |
|                                     |  |                                     | SETTLING-CHAMBER Gas Velocity Rate                     | SETTLING_CHAMBER_Gas_Velocity_ | The velocity at which the particulate laden gas is expected to travel through the chamber.                 |
|                                     |  |                                     | SETTLING-CHAMBER Tray Number Quantity                  | SETTLING_CHAMBER_Tray_Number_Q | The number of horizontal trays in a multiple tray design.  |
|                                     |  |                                     | SETTLING-CHAMBER Baffle Number Quantity                | SETTLING_CHAMBER_Baffle_Number | The number of baffles in a baffle chamber.   |
|                                     |  |                                     |  |                                |  |
| THERMAL-CONTROL-ANCILLARY-DEVICE    | EQUIPMENT USED ON THERMAL AIR EMISSION CONTROL DEVICES TO ENHANCE MIXING THE GAS STREAM IN THE COMBUSTION CHAMBER IN ORDER TO ACHIEVE HIGHER DESTRUCTION EFFICIENCIES. | THERMAL_CONTROL_AN                  | THERMAL-CONTROL-ANCILLARY-DEVICE Type Code             | THERMAL_CONTROL_ANCILLARY_DEVI | The code that denotes the type of ancillary equipment used by the thermal control device.                  |
|                                     |  |                                     | PLANT-EQUIPMENT Identifier**                           | PLNT_EQPMNT_ID                 |  |
|                                     |  |                                     | FACILITY Identifier**                                  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                                     |  |                                     | THERMAL-CONTROL-ANCILLARY-DEVICE Number Quantity       | THERMAL_CONTROL_ANCILLARY_DEVI | The number of the type of ancillary equipment used by the thermal control device.                          |
| THERMAL-CONTROL-DEVICE              | AN AIR EMISSION CONTROL DEVICE THAT USES HEAT TO TO OXIDIZE AIR POLLUTANTS INTO CARBON DIOXIDE AND WATER.  | THERMAL_CONTROL_DE                  | PLANT-EQUIPMENT Identifier**                           | PLNT_EQPMNT_ID                 |  |
|                                     |  |                                     | FACILITY Identifier**                                  | FACILITY_Identifier            | The identifier that represents a FACILITY.   |
|                                     |  |                                     | THERMAL-CONTROL-DEVICE Type Code                       | THERMAL_CONTROL_DEVICE_Type_Co | The code that denotes the type of THERMAL-CONTROL-DEVICE.  |
|                                     |  |                                     | THERMAL-CONTROL-DEVICE Residence Time                  | THERMAL_CONTROL_DEVICE_Residen | The amount of time the gas stream remains in the combustion chamber of the THERMAL-CONTROL-DEVICE.         |

**Appendix D**  
**DESCIM Data Model: airview1**  
**Emission Control Equipment Model**

| ENTITY NAME                           | ENTITY DEFINITION   | TABLE NAME                        | ATTRIBUTE (LOGICAL)                                      | ATTRIBUTE (PHYSICAL)           | ATTRIBUTE DEFINITION  |
|---------------------------------------|---|-----------------------------------|--|--------------------------------|---|
| THERMAL-CONTROL-DEVICE<br>(continued) | AN AIR EMISSION CONTROL DEVICE THAT USES HEAT TO TO OXIDIZE AIR POLLUTANTS INTO CARBON<br>(continued) | THERMAL_CONTROL_DE<br>(continued) | THERMAL-CONTROL-DEVICE<br>Combustion Chamber Volume      | THERMAL_CONTROL_DEVICE_Combust | The volume of the THERMAL-CONTROL-DEVICE<br>combustion chamber.   |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Chamber Minimum Temperature    | THERMAL_CONTROL_DEVICE_Chamber | The minimum temperature in the THERMAL-CONTROL-<br>DEVICE combustion chamber during normal operation.         |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Catalyst Type Code             | THERMAL_CONTROL_DEVICE_Catalys | The code that denotes the catalyst type (if any) used by the<br>THERMAL-CONTROL-DEVICE.                       |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Catalyst Surface Area          | THERMAL_CONTROL_DEVICE_Catalys | The surface area of the catalyst used in the THERMAL-<br>CONTROL-DEVICE.                                      |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Excess Air Percentage Rate     | THERMAL_CONTROL_DEVICE_Excess_ | The amount of air provided in excess of that ideally required<br>for complete combustion.                     |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Burner Type Code               | THERMAL_CONTROL_DEVICE_Burner_ | The code that denotes the type of burner used by the<br>THERMAL-CONTROL-DEVICE.                               |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Burner Recirculation Type Code | THERMAL_CONTROL_DEVICE_Burner_ | The code that denotes the burner recirculation method for the<br>THERMAL-CONTROL-DEVICE.                      |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Recirculation Percent Rate     | THERMAL_CONTROL_DEVICE_Recircu | The percent of burner emissions recirculated by the<br>THERMAL-CONTROL-DEVICE.                                |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Burner Number Quantity         | THERMAL_CONTROL_DEVICE_Burner_ | The number of burners used by the THERMAL-CONTROL-<br>DEVICE.   |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Burner Arrangement Code        | THERMAL_CONTROL_DEVICE_Burner_ | The code that represents the burner arrangement in the<br>THERMAL-CONTROL-DEVICE.                             |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Reducing Agent Code            | THERMAL_CONTROL_DEVICE_Reducin | The code that denotes the reducing agent used by the<br>THERMAL-CONTROL-DEVICE.                               |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Agent Injection Ratio Rate     | THERMAL_CONTROL_DEVICE_Agent_I | The ratio of the reducing agent to Nitrogen Oxide during<br>normal operation.                                 |
|                                       |   |                                   | THERMAL-CONTROL-DEVICE<br>Injection Point Quantity       | THERMAL_CONTROL_DEVICE_Injecti | The number of injection points used to inject the reducing agent<br>by the THERMAL-CONTROL-DEVICE.            |
| THERMAL-CONTROL-MATERIEL-<br>ITEM     | Fuel used by a thermal air emission control device.   | THERMAL_CONTROL_MA                | PLANT-EQUIPMENT Identifier**                             | PLNT_EQPMNT_ID                 |   |
|                                       |   |                                   | MATERIEL-ITEM Identifier**                               | 609                            | The identifier that represents a MATERIEL-ITEM.   |
|                                       |   |                                   | FACILITY Identifier**                                    | FACILITY_Identifier            | The identifier that represents a FACILITY.  |
|                                       |   |                                   | THERMAL-CONTROL-MATERIEL-<br>ITEM Class Code             | THERMAL_CONTROL_MATERIEL_ITEM  | The code that denotes whether the fuel is primary or a<br>secondary fuel used to maintain operating temperatu |
| WET-SCRUBBER                          | AN AIR EMISSION CONTROL DEVICE THAT USES<br>LIQUID TO REMOVE POLLUTANTS FROM AN AIR                   | WET_SCRUBBER                      | PLANT-EQUIPMENT Identifier**                             | PLNT_EQPMNT_ID                 |   |
|                                       |   |                                   | FACILITY Identifier**                                    | FACILITY_Identifier            | The identifier that represents a FACILITY.  |
|                                       |   |                                   | WET-SCRUBBER Type Code                                   | WET_SCRUBBER_Type_Code         | The code that denotes the type of wet-scrubber.   |
|                                       |   |                                   | WET-SCRUBBER Liquid Type Code                            | WET_SCRUBBER_Liquid_Type_Code  | The code that represents the type of liquid used in the<br>scrubber.  |
|                                       |   |                                   | WET-SCRUBBER Recirculated<br>Percent Rate                | WET_SCRUBBER_Recirculated_Perc | The percentage of liquid returned to the wet scrubber system.   |
|                                       |   |                                   | WET-SCRUBBER Minimum Liquid<br>Injection Rate            | WET_SCRUBBER_Minimum_Liquid_In | The minimum volumetric flow rate of the liquid used by the wet<br>scrubber.                                   |
|                                       |   |                                   | WET-SCRUBBER Maximum Liquid<br>Injection Rate            | WET_SCRUBBER_Maximum_Liquid_In | The maximum volumetric flow rate of the liquid used by the wet<br>scrubber.                                   |
|                                       |   |                                   | WET-SCRUBBER Liquid pressure<br>Rate                     | WET_SCRUBBER_Liquid_pressure_R | The minimum operating pressure of the liquid used in the<br>scrubber.   |
|                                       |   |                                   | WET-SCRUBBER Make Up Rate                                | WET_SCRUBBER_Make_Up_Rate      | The rate at which new liquid must be added to the system due<br>to evaporation or discharge to a disposal sys |
|                                       |   |                                   | WET-SCRUBBER Throat Velocity<br>Rate                     | WET_SCRUBBER_Throat_Velocity_R | The expected velocity of the air stream at the throat (or inlet) to<br>the scrubber.                          |
|                                       |   |                                   | WET-SCRUBBER Throat Type<br>Code                         | WET_SCRUBBER_Throat_Type_Code  | The code that denotes the type of throat used by the scrubber.  |
|                                       |   |                                   | WET-SCRUBBER Packing Type<br>Code                        | WET_SCRUBBER_Packing_Type_Code | The code that denotes the type packing if used by the<br>scrubber.  |
|                                       |   |                                   | WET-SCRUBBER Ventilation Type<br>Code                    | WET_SCRUBBER_Ventilation_Type_ | The code that denotes the ventilation type used by the<br>scrubber.   |
|                                       |   |                                   | WET-SCRUBBER Flow Direction<br>Code                      | WET_SCRUBBER_Flow_Direction_Co | The code that denotes the gas flow to scrubbing solution flow<br>in the scrubber.                             |